

Chapter R.5

Quadratic Inequality

Solve a quadratic inequality of one variable by graphing.

Ex: $x^2 - x < 12$

1) Put in standard form

$$x^2 - x - 12 < 0$$

2) Change inequality to an equation.

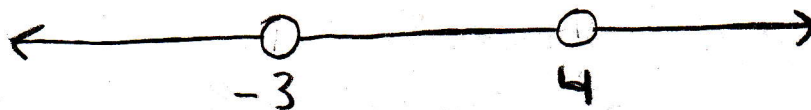
$$x^2 - x - 12 = 0$$

3) Factor and solve for x .

$$(x-4)(x+3) = 0$$

$$x = 4 \quad \text{or} \quad x = -3$$

4) Put x solutions on a number line.



Since this is a strict inequality $<$, use open circle at the x points.

cont. ↗

The solution looks like this:



The graphed form of the solution.